Docket No. 00-116-DSK

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CLAIMS:

What is claimed is:

1 1. A virtual stored data management system; the virtual stored data management system comprising:

one or more hosts; and

- a plurality of data storage elements functionally coupled to the one or more hosts, wherein the plurality
- 6 of data storage elements include a host network
- 7 attachment, a data transfer system, a storage server
- 8 and/or controller, and a permanent data storage media,
- 9 wherein the permanent data storage media is organized
- 10 with management information uniquely associated with
- 11 units of data such that the management information may be
- 12 manipulated in several different locations within the
- 13 virtual stored data management system.
 - 1 2. The virtual stored data management system as recited
- 2 in claim 1, wherein manipulation of the data comprises
- 3 allowing an internal process to discover a current
- 4 location of a data processing function.
- 1 3. The virtual stored data management system as recited
- 2 in claim 1, wherein manipulation of the management
- 3 information comprises allowing the location of the

- 4 manipulation of said management information to be changed
- 5 as directed by a host.
- 1 4. The virtual stored data management system as recited
- 2 in claim 1, wherein manipulation of the management
- 3 information comprises allowing the location of the
- 4 manipulation of said management information to be changed
- 5 as directed by internal process.
- 1 5. The virtual stored data management system as recited
- 2 in claim 1, wherein manipulation of the management
- 3 information comprises allowing the location of the
- 4 manipulation of said management information to be
- 5 replicated as directed by a host.
- 1 6. The virtual stored data management system as recited
- 2 in claim 1, wherein manipulation of the management
- 3 information comprises allowing the location of the
- 4 manipulation of said management information to be
- 5 replicated as directed by internal process.
- 1 7. The virtual stored data management system as recited
- 2 in claim 1, wherein manipulation of the management
- 3 information comprises allowing for processing of the
- 4 management information to be held consistent when
- 5 completed in more than one place substantially
- 6 simultaneously.

- 1 8. The virtual stored data management system as recited
- 2 in claim 1, wherein at least part of the management
- 3 information manipulation is performed at a node in a
- 4 connecting network.
- 1 9. The virtual stored data management system as recited
- 2 in claim 1, wherein at least part of the management
- 3 information manipulation is performed at a node in a
- 4 storage server.
- 1 10. The virtual stored data management system as recited
- 2 in claim 1, wherein at least part of the management
- 3 information manipulation is performed at a node in a
- 4 storage controller.
- 1 11. The virtual stored data management system as recited
- 2 in claim 1, wherein at least part of the management
- 3 information manipulation is performed at a node in a
- 4 storage element.
- 1 12. The virtual stored data management system as recited
- 2 in claim 1, where in at least part of the management
- 3 information associated with units of data is stored at a
- 4 node in the storage media.

- 1 13. The virtual stored data management system as recited
- 2 in claim 12, wherein the storage media includes
- 3 robotically controlled removable media.
- 1 14. The virtual stored data management system as recited
- 2 in claim 1/2, wherein the storage media includes a newly
- 3 acquired removable media.
- 1 15. The virtual stored data management system as recited
- 2 in claim 1, turther comprising:
- discovery means for discovering one or more of the
- 4 plurality of storage elements.
- 1 16. The virtual stored data management system as recited
- 2 in claim 15, wherein the discovery means work in parallel
- 3 with management \information processing.
- 1 17. The virtual\stored data management system as recited
- 2 in claim 1, wherein the manipulation of the management
- 3 information comprises a change of location.
- 1 18. The virtual stored data management system as recited
- 2 in claim 17, wherein the change of location includes a
- 3 promotion toward a using host.

- 1 19. The virtual stored data management system as recited
- 2 in claim 17, wherein the change of location includes a
- 3 demotion further from a using host.
- 1 20. The virtual stored data management system as recited
- 2 in claim 1, further comprising:
- 3 simultaneous processing of the management
- 4 information at different layers of The virtual stored
- 5 data management system.
- 1 21. The virtual stored data management system as recited
- 2 in claim 1, $f\mu$ rther comprising:
- 3 simultaneous processing of the management
- 4 information at different units at the same layer of the
- 5 virtual stored data management system.
- 1 22. The virtual stored data management system as recited
- 2 in claim 21, further comprising:
- simultaneous processing of the management
- 4 information at different layers and different units of
- 5 the virtual stored \data management system.
- 1 23. The virtual stored data management system as recited
- 2 in claim 1, wherein manipulation of the management
- 3 information comprises modification of the management
- 4 information in several locations in the virtual stored
- 5 data management system.